

Title: The HyperCard™ Project

Link to Outcomes:

- **Problem Solving** Students will use divergent thinking skills to set up a thumbnail sketch of the stack the group wishes to create.
- **Communication** Students will work within a cooperative learning group (3-4 students).
- **Reasoning** Students will demonstrate the ability to use logical reasoning skills that will result in the creation of the product.
- **Connections** Students will gain a general understanding of the dynamics involved in programming with the Apple *HyperCard* program.
- **Number Relationships** Students will use many numerical relationships when linking and scripting between cards.

Brief Overview:

Initially, students run through a stack titled, “HyperCard Tour” , and complete a corresponding packet. Students then work in groups to design, analyze , build, draw, and program a HyperCard stack. Each member has an individual task that helps create the stack. When the individual task is completed, all students give the evaluation of the completed rough design. Each member has the task of creating the appropriate amount of cards for the stack. The difficulty level of programming can vary from novice to expert.

Grade/Level:

Grades 6-12

Duration/Length:

The amount of time spent on this unit depends on the amount and availability of a computer system(s). Each cooperative group should be allowed a minimum of 8 hours at the computer. Time for research, development, and design should be allocated in the classroom or as homework.

Prerequisite Knowledge:

Students should have a general understanding of the *Macintosh Operating System*.

Objectives:

Students will:

- be able to create a thumbnail sketch of their HyperCard stack.
- be able to sketch a flow chart of the group's design.
- be able to research and retrieve the appropriate information from various sources.
- be able to create a HyperCard stack.
- receive a numerical grade based on the amount of cards, buttons, graphics, and level of scripting in the stack.

Materials/Resources/Printed Materials:

- Macintosh Computer System
- HyperCard Program (any version)
- HyperCard Manual (of the version you are running)
- Apple Script Text Manual (this helps for the advanced programmers)
- Library access (to gain literary information on the group's chosen HyperCard topic)
- Paper
- Pencils

Development/Procedures:

- Tell the students to start up the computer system and open the HyperCard Application.
- Tell the students to open the "File" option on the Home card and scroll down to the "Open New Stack" option. Each student can assign the new stack a name. If students have identical names, assign an additional number to the names.
- Tell the students to type in the command "Set User Level To 5" in the window that just opened. This command allows the students to draw, import, paste, ResEdit, change scripting, make buttons, etc. Be extremely careful with this knowledge. HyperCard automatically saves your work as you type. If you or your students set the user level to 5 on a purchased stack, any changes you make will be automatically saved! There will be no way to get the stack back to its original form.
- Tell the students to experiment with the "Tools" option on their stack. They should create buttons, boxes, circles, lines, colored boxes (version 2.2 only), etc.
- Give the students a demonstration of a completed HyperCard stack (HyperCard Tour, Stack Templates, Background Art, etc.).

- Have the students open the “Objects” option and scroll down to the “New Button” option. Have the students choose the button option on the tool bar and then double click on the New Button. This will open the window for the new button. This window will give your button the following options: link to other cards; change style; add icons; change name; add effects; and change scripting.
- Tell the students to create their own stack. The students should be allowed to consult various manuals, texts, and books that will help in the creation of the stack.

Evaluation:

Allow each group ample time to research the topic and create an appropriate stack. A grade can be determined by assigning a numerical value for every button, graphic and card that the group has on the stack (extra credits can be given for any student-programmed scripting).

Extension/Follow Up:

As the students learn more about HyperCard’s AppleScript, a whole new field opens up to the programmer. At home or during free time the students can add more cards to the stack. The stack can grow in complexity as an understanding of HyperCard develops.

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Name(s) of Stack Creators _____ Date: / /

Category	Amount	Actual	Total Points
1) Sounds 5 points for every 1-5		Do Not Put Anything Here	Do Not Put Anything Here
2) Scanned Image 1 only - worth 10 points		Do Not Put Anything Here	Do Not Put Anything Here
3) Cards 50 cards worth 50 points		Do Not Put Anything Here	Do Not Put Anything Here
4) Buttons. 60 buttons worth 30 points		Do Not Put Anything Here	Do Not Put Anything Here
5) Quality & Presentation Points		Do Not Put Anything Here	Do Not Put Anything Here
Final Grade			

Name _____ Grade _____ Date _____

Hypercard Tour - Worksheet



This is a worksheet ditto that you are to fill out as you (or you and your group) travel through the HyperCard Tour.

Introduction:

- 1) You could call HyperCard an " _____ ", but it is a lot more than a set of file folders.
- 2) You can use HyperCard for something as ordinary as an _____

- 3) How many sections does the tour have? _____
- 4) What are the section titles? _____

Section One: Looking at Hypercard

This section goes over three topics, what are they?

- 5) _____
- 6) _____
- 7) _____

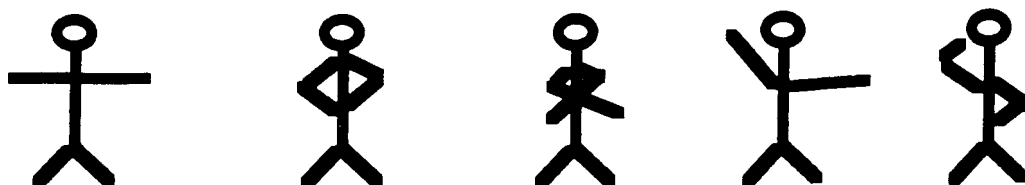
How Hypercard Organizes Information

- 8) In many ways using HyperCard is like using _____ except that a HyperCard is a _____ instead of a piece of paper.
- 9) When you put cards together, you have a _____
- 10) A HyperCard stack works something like a stack of _____ - but it gives you many more options.

What are the 5 parts of the Puerto Rican Parrot?

- 11) _____
- 12) _____
- 13) _____
- 14) _____
- 15) _____

16) Circle what the second position of Ballet looks closest to?



17) Circle what you would type to find a topic?

a. play b. find c. turn on d. go to e. look for

18) How do you move text? C and P.

19) What country does the Giant Chaco Peccary Pig live? _____

20) What region of Paraguay does the pig live in? _____

21) Is the Giant Chaco Peccary Pig rare? Yes or N o

How to Get Around in Hypercard

22) You usually move - or "navigate" among the _____ in a _____ by means of buttons.

23) Each time you click the arrow, you see a _____ in _____

24) How many Okapi exist in captivity? _____

25) Zebra's live in the _____ of _____

26) Buttons that take you to the next card, or _____ often look like _____ or _____

27) You also move to the _____ or _____ card in a _____ by pressing the _____ **on the keyboard.**

28) One of HyperCard's menus is the _____, which gives you still another way to _____ from _____ to _____

29) Do the menus show in this stack (the **hypercard** tour you are doing right now)? Yes or No

30) The Previous command takes you to the _____ card.

31) The Next command takes you to the _____ card.

32) The First command takes you to the _____ card.

33) The Last command takes you to the _____ card

34) The Find command lets you specify _____ **you want to** _____

How to Start Using Hypercard

- 35) How many ready-made stacks are on the title card, "How to start using HyperCard"? _____
- 36) The quickest way to get to the stacks on the title card "How to start using HyperCard" is from the _____ stack, which you can think of as a _____
- 37) The smallest picture on the cards of a Home stack are _____ that take you to _____
- 38) Circle are or are not. The HyperCard Tour stack takes you through the cards that you are or are not looking at now
- 39) The HyperCard Help stack takes you _____ the _____
- 40) You use the _____ stack in conjunction with the _____ Hypercard, which shows you how to _____ using Hypercard.
- 41) The new features stack describes the new features that have been added to version _____ of Hypercard.
- 42) The _____ stack will make pie charts, scatter plots, fever graphs, or a _____ for you.
- 43) No matter where you are in HyperCard you can always get back to the Home stack by choosing _____ from the _____ menu.
- 44) Most stacks also have _____ that take you right to the Home stack.
- 45) What is Jane Doe's phone number? (_____) _____
- 46) A HyperCard stack resembles a stack of _____
You can move through a HyperCard stack by:
- 47) _____
- 48) _____
- 49) _____
- 50) HyperCard comes with ready-made _____

Section Two: Working with Hypercard

This section tells you about:

- 51) _____
- 52) _____ and _____
- 53) Elements of a card- _____ and _____

Card Sizes:

- 54) All HyperCard stacks are made up of _____
- 55) You look at _____ card in a stack at a time.
- 56) The cards that make up any one stack are all the

- 57) Different stacks can have cards of _____
- 58) You can have more than _____ open on the _____
at once.
- 59) Having more than one stack open at a time, lets you _____
and _____ easily between stacks.

Foreground and Background:

- 60) Every card has a _____ and _____
(also called the "_____").
- 61) You can put _____ and _____ in the background
and they will show through.
- 62) The background you put on a card can be _____ by all the cards
in your stack.

Elements of a Card:

- 63) A card usually includes _____ and _____
- 64) Text usually goes in "_____"
- 65) When you move the cursor into a text feild, does it change? Yes or No.
- 66) You can easily change and move text feilds" _____ and _____
and move it anywhere you want it on the card.
You can type the text in _____ size, _____ and _____
- 67) Most stacks include _____ as well as _____

68) You can create your own graphics (like those Mr. Palma created in question # 16) with the _____

69) You can also _____ in _____ from clip art collections.

Much of the power of hypercard is in buttons.

70) Buttons are often used to _____

71) A button can be linked to any _____ in a _____

What are the three birds discussed in the "map of Stacks":

72) _____

73) _____

74) _____

75) Clicking a button can move you from _____ to _____

76) What two stacks are linked together here?

_____ stack and the _____ stack.

77) Buttons can also use _____

78) Buttons can _____, too

79) One way to see hidden buttons on a card is to press the _____ and _____ key at the same time.

Remember These Points

80) You can have more than _____ stack open on the screen at the same time.

81) All cards have a _____ and a _____

82) Cards can contain _____ and _____

Name _____

Notes

Date _____

Drill: Identify each component.



Objective: At the end of the lesson the SWBAT _____

Notes: To put the HyperCard program in the design mode you must :

1) _____

2) _____

The a-c and 1-6 have been added for ease in identification

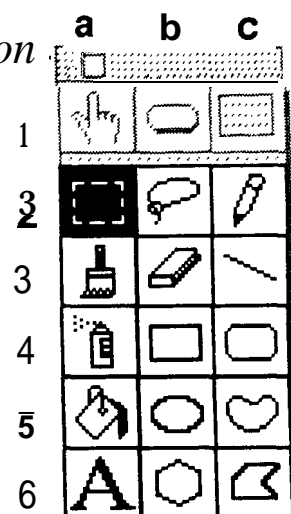
The tools **box** give3
you these options:

a - 1: This is the "arrow". It is used to choose move, or point to any item on you card or page.

b - 1: This is the "button". It is used to choose a button vou have created.

When you click twice on any button you have made it will give you options of things you can do with your button.

c - 1: This is the "note". It is used to add any written portion to your card. It acts like a mini word processor. The user can scroll through it and read what vou have written.



a - 2: This is the "box select". It is used to pick any regular shape (must go around the entire item or you will cut part of it off).

b - 2: This is the "lasso". It is used to pick any odd shaped items on your card for moving it elsewhere.

c - 2: This is the "pencil". It is used to free hand draw.

a - 3: This is the "paint brush". It is used to freehand paint.

b - 3: This is the "eraser". It is used to erase any drawn shape (it **will not** erase a button or a background).

c - 3: This is the "line". It is used to make lines.

a - 4: This is the "spray paint". It is used to freehand paint.

b - 4: This is the "box". It is used to make box shapes.

c - 4: This is the "circle". It is used to make circle shapes.

a - 5: This is the "paint can". It is used to fill in shapes with colors or patterns.

b - 5: This is the "oval". It is used to make oval shapes.

c - 5: This is the "odd oval". It is used to make any odd rounded shaped figure.

a - 6: This is the "typer". It is used to type any words you want to put on your page.

b - 6: This is the "shaper". It is used to make regular polygon type shape.

c - 6: This is the "shaper". It is used to make polygon type shape.

HYPERCARD WORDS

QHIGCFI I I QKAPDDHJJKKOABPBSLQTHGQEGKGAJMM
 QHALPQEECKDPCJPBI DOADFCCLTLQOLMBBBPDCJCLG
 HQKNMMESSAGEDQOKEBNOQCI AHJOBOLLEEHKDI PEN
 I DNOEQDEBBGKJJGLKDFDMACI LLLLLLMBPJJEPEBOD
 OGNPHKIOCGAFBONFQKEEOKAHBBUTTONNLMDQDIH
 CGHNBHLHCPBJAAQKFCKLAI AFALGCFLNLCCKJDI KOD
 BMQHGGMFKNDOCKCDIIONPGRJDL CJHCHEGI EBLQDD
 LDBDOPNFPLFNCCMEFJFGLQPDCLKILOI FQONNKDAJ
 KNOCBPAPKBLPPPPFFODJLCEFQHJ I FCGJPDFCLBAM
 PQIJMPUELJPNFLFCNQI DI MOEBJKOQI CFBHAFJBQBO
 MIAHKCDGOCBCBCNDQMGOGMPHDI MDODDOCDFDFAGDPQ
 FAI FHPI ABI MAGCRBLBGECKMMDLOJJJACOGCDBI PQ
 LNMGNEODHAROLPAMMTFKDCQNBODEFDAMFQLBJABB
 FOFMNKEFBDI FGMCBIBNPMICLEMBLI PAGGQOOI JKU
 GEKFJMONSI LMHMRDAOBDMLLLAGEAGGJNMNSHONJT
 EPCQEBKDEQMAGNEPQNNLHEONEHFFGI JFMEQJHI T
 OI ALMOAJAPMPJMPFFFGEQDQJQBLNEOGNPOAHQNKO
 QBTCLI EPJDGJODYPMEDNKHMBTFAI DNGKLHMOFKKN
 BESGHNFANMGDHFHFPCAHPHKBCPACCHDMMDJBGNI
 GGDMQQLFMI ECBHQBGI FNMAOHI QI FFJNFNJCMCOHN
 JMMI BQDBPPKJDAKNTNSCRAPBOOKRQAOGOPAJMQI F
 HODMKHBJIFINGJEQDRHHOLFCEI APCOCQQDMQADA O
 KKI GNJNLDDCLEGGGDPAJQFCCEGHPHSOBKQAGPJHS
 JBJBMJHCBQJALIANLIQPJIMCHFQDPJJDQIQHCGCF
 DI MFCQQOBEMLAGMAQCSJ I HKEDNOJMHNMJDJONAJD
 JOEFHKKOBODNNPDOPMBKPLGHEGGBENQNCOENNJFF
 CKGI UAMPKCKDJ KBOIGHKDFCDEECI GPI DFKANQFPG
 NKEOSQDFBMNQDDI BMSKLLI AAPI DOI MJ I AEI QQNAO
 PI PEEPMI LQI GDHNDTPFJHLGCOKCNOI BFI NHCMBDD
 MEFQRNLNNCCQDKPCCHFCKGBGBDIBNDICGNKPBHBO
 NEGGLHALGBBBBOPEJGI QCOHDJKAJDOEMNJKGI QMJM
 OOFEPNPL LJBAJI DHCDHKNLPPGFAKKKFABPNODNU
 EDJAVBHNTXETBHNHOHAHKNFQI KOEFOGFEEBHCDPO
 EDANEKI BQLKOALNI NNCEGEGCGDKLQFADHLFNPNDH
 ECDBLBJOCKDHGBMCFDHEQHFOKLJCMPKCLILFI HKG
 CKJAJOKHHFFFOQGFLHHANLJHNHEFNKQHGLPPOEQLD
 CI NOGKBLEAEFAKOOFBBA DPCALEM PFDHGDIP LQCIN
 JQLHNBPGAQBCENAIOBJMHHDLPBEGKJMMKQQFI MTQ
 BDOI BJEQFOMEQPN EI QCAINPLPHLQOEFHIEHGQANA
 ECLEHJBEBFBBLFMGCHDQCHNHCICNCQKLDEKDFQMF

AUDIO	CLI PART	EFFECT	MESSAGE	SCRAPBOOK	TEXT
BUTTON	CLOSE	FILE	OBJECTS	SCRIPT	TOOLBAR
BUTTONINFO	DISK	HYPERCARD	OPEN	STACK	UNDO
CARDS	EDIT	LINK	SCANNING	STACKINFO	USERLEVEL

HYPERCARD WORDS

QHIGCFII IQKAPDDHJJKKOABPBSLOTHGQEGKGAJMM
 QHALPQEECKDPCJPBIDOADFCLTLOOLMBBBPDCJCLG
 HQKNM - DQOKEBNOQCI AHJOBOLLEEHKDI PEN
 I DNOEQDEBBGKJJGLKDFDMA CILLLLMBPJ J EPEBOD
 OGNPHKI OCGAFBONFQKEEOKAHB BUTTNNLMDQDI I H
 CGHNBLHCPBJAAQKFC KLAIAFA LGCFLNL CCKJ DI KOD
 BMQHGGMFKNDOCKCDIIONPGRJDL CJHCEGI EBLQDD
 LDBDOPNFPLFNCCMEFJFGLQPDCLKI LOI FQONNKDAJ
 KNOCBPAPKBLPPPFFFO DJLCE FQHJ I FCGJ PDFCLBAM
 PQIJMPUELJPNLFCNQI DIMOEBJ KOQICFBHAFJBQBO
 MIAHKCDGOCCBCNDQMGO GMPHDIMDODDOCFDFAGDPQ
 FAIFHP ABIMAGCBBLBGECKMMDLOJJJACOGCDBIPQ
 LNMGNEODHAROLPAMMTFKDCQNBODEFDAMFQ LBJABB
 FOFMNKEFBBI FGMCBIBNPMI CLEMBLI PAGGQOOIJKU
 GEKFJMONSILMHMRBAOBDMLLLAGEAGGJNMNSHONJT
 EPCQEBKDEQ MAGNEPQNNLHEONEHFFGI IJFMEQJHI T
 OIALMOAJAPMPJMPFFFGE PQDJQBLNEOGNPOAHQNK O
 QBTCLI EPJDGJODYPMEDNKHMBTFAIDNGKLHMOFKKN
 BESGHNFANMGDHFH FPCAHPHKBCRACCHDMMDJ BGNJ
 GGDMQQLFMI ECBHQBGIFNMAOHI QIFFJNFNJCMCOHN
 JMMI BQDBPPKJDAKNTNSCRAPBOOKRQAOGOPAJMQI F
 HODMKHBJ IFINGJ EQDRHHOLFCEIAPCOCQQQDMQADA O
 KKI GNJNLDDCLEGGGDP AJQFCCEGHPHS OBKQAGPJHS
 JBJ BMJ HCBQJALI ANLIQRJIMCHFQDPJ J DQI QHCGCF
 DI MFCQQOBEMLAGMAQCSJLHKEDNOJMHNMJ DJONAJD
 JOEFHKKOBODNNPDOPMBKPLGHEGGBENQNCOE NNJFF
 CKGIUAMPKCKDJ KBOIGHKDFCDEECI GPI DFKANQFPG
 NKEOSQDFBMNQDDI BMSKLLIAAPI DOIMJ IAEIQQNAO
 PIPEEPMI LQI GDHNDTPFJHLGCOKCNOI BFINHCMBDD
 MEFQRNLNNCCQDKPCHFCCKGBGBDI BNDI CGNKPBHBO
 NEGGI HALGBBBBOPEJGI QCOHDJ KAJ DOEMNJ KGI QMJM
 OOOFE PNPLLJB A JI DHCDHKNLPPGFAKKKFABPNQDN U
 EDJAVBHNTXETBHNHOHAHKNFQI KOEFOGFEEBHCDPO
 EDANEKIBQLKGA LNI NNCEGEGCGDKLQFADHLFNPN DH
 ECDBLBJOCKDHGBMCFDHEQHFOKLJCMPKCLILFI HKG
 CKJAJOKHHFFOQGFLLHANLJHNHEFNKQHGLPP OEQLD
 CINOGKBLEAEFAKO OBFBADPCALEMPFDHGDIP LQCIN
 JQLHNBPGAQBCENAI OBJMHHDLPBEGKJMMKQQFIMTQ
 BDOYBJEQFOMEQPN EIQCAINPLPHLQOEFHI EHGQANA
 ECEHJBEBFBBLFMGCHDQCHNHCICNCQKLDEKDFQMF

AUDIO	CLI PART	EFFECT	MESSAGE	SCRAPBOOK	TEXT
BUTTON	CLOSE	FILE	OBJECTS	SCRIPT	TOOLBAR
BUTTONINFO	DISK	HYPERCARD	OPEN	STACK	UNDO
CARDS	EDIT	LINK	SCANNING	STACKINFO	USERLEVEL